COLORADO
Colorado Water Conservation Board
Department of Natural Resources

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TO: Colorado Water Conservation Board Members

FROM: Cole Bedford, P.E., Project Manager
Kirk Russell, P.E., Finance Section Chief

DATE: September 20-21, 2022 Board Meeting

AGENDA ITEM: 10d. Water Project Loans
Uncompahgre Valley Water Users Association
Taylor Park Hydro Powerplant Project

Staff Recommendation

Staff recommends the Board approve a loan not to exceed $1,701,850 ($1,685,000 for project costs and $16,850 for the 1% service fee) to the Uncompahgre Valley Water Users Association for costs related to the Taylor Park Hydro Powerplant Project, from the Severance Tax Perpetual Base Fund. The loan term will be 30 years at an interest rate of 2.00% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.

Staff additionally recommends the following loan contract condition:

1. Prior to disbursement of funds, the Association shall provide documentation that all funding is secured and adequate to cover the Project cost estimate.

Introduction

The Uncompahgre Valley Water Users Association (Association) is applying for a loan for the Taylor Park Hydro Powerplant (Project). Taylor Park Reservoir, below which the plant will be built, was constructed by the Bureau of Recreation (Reclamation) in the 1930s. It is located in Gunnison County, east of Crested Butte, Colorado. The Association will partner with the Gunnison County Electric Association (GCEA) to undertake the project and the cost of construction will be split between them. Once completed, the plant will produce 3,800,000 kWh of electricity annually, distributed via GCEA's electrical network across several western Colorado counties. Construction will take place during a six-month period in 2023. The total Project cost is estimated to be $3,280,000. See attached Project Data Sheet for a location map and Project summary.

Borrower – Uncompahgre Valley Water Users Association

The Association is a 501(c)(12) not-for-profit entity. It was incorporated in 1903 and is contracted with Reclamation to operate and maintain the Uncompahgre Project facilities. The Association's Board of Directors are elected by the 3,500 shareholders. The Board is made up of nine members which may acquire water and real property, acquire facilities for the purpose of providing use of water, make and enforce rules regarding the distribution of water, borrow money and incur indebtedness, and levy assessments. Liens may be recorded on the lands of shareholders if assessments are unpaid.

The Association operates in Reclamation's Uncompahgre Project area. Its infrastructure includes one storage dam at Taylor Park Reservoir, seven diversion dams, 128 miles of canals, 438 miles of laterals, and 216 miles of drains. Approximately 85,000 acres are irrigated under the Association's system, which produce alfalfa hay, small grains, row crops, and pasture for the local beef and sheep industry. The Association also operates four small-scale hydroelectric facilities.

Background

Taylor Park Reservoir is one of the many components of the Uncompahgre Project Area owned by Reclamation and managed by the Association. Hydroelectric generation was contemplated when the reservoir was constructed in 1937, but never implemented. Now, a partnership between the Association and the GCEA proposes to construct the Taylor Park Hydro Power Plant below the dam to utilize the power producing potential of the outflow from Taylor Park Reservoir. GCEA owns and operates the electric distribution system adjacent to the dam. The partnership between the Association and GCEA is formalized under Taylor River Hydro, LLC. Taylor River Hydro, LLC. will operate the finished plant in accordance with an already signed agreement between the Association and GCEA, but the financing for the project construction will be provided by the Association and GCEA, separately.

Loan Feasibility Study

Steve Pope, Manager of the Uncompahgre Valley Water Users Association, with support from Lindsay George, PE of Small Hydro Consulting, LLC, prepared the Loan Feasibility Study titled, "Feasibility of Hydroelectric Generation at Taylor Park Reservoir" dated July, 20 2022. The feasibility study is in accordance with CWCB guidelines and includes an analysis of alternatives, estimated costs, and financial statements prepared by Dalby, Wendland, and Co., PC.

Water Rights

The Association's ten-year average annual water demand is 870,000 acre-feet. Water in the system includes a 1913 Gunnison Tunnel water right from the Gunnison River (1,300 cfs), an 1882 Uncompahgre River right (1,225.64 cfs), and a 1937 Taylor Park Reservoir storage right of 106,230 acre-feet. The total direct flow water rights sum to 2,525.64 cfs. The Association also purchases 11,200 acre-feet of Ridgeway Reservoir water annually from Tri-County Water Conservancy District. The Taylor Park Reservoir Operation and Storage Exchange Agreement allows second fill rights in Taylor Park Reservoir and to move Taylor first fill credits into Blue Mesa Reservoir. The Taylor Park Hydro Powerplant will be a "run-of-the-river" facility, which will take advantage of existing river conditions. Its operation will not measurably affect the quantity or quality of water for other users.

Project Description
The purpose of this Project is to increase the supply of clean energy to rural areas of the Upper Gunnison Basin by utilizing the Associations existing water rights.

Alternative 1 – No Action: Taking no action would maintain the status quo. No increase in power generation would result. This alternative was not selected because it would not meet the Project purpose.

Alternative 2 – Construct a plant at a location other than Taylor Park Reservoir: This alternative involves constructing a hydro power plant similar to the Taylor Park Hydro Plan at some other viable site in the Gunnison basin. The alternative was not viable because no other locations other than Taylor Park Reservoir were identified which provided the same power producing potential.

Selected Alternative 3 – Construct the Taylor Park Hydro Powerplant: This alternative involves constructing the Taylor Park Hydro Powerplant. The facility will utilize the exiting outlet works of the Taylor Park Dam. The facility will take in water via a 30-inch steel pipe connected to an existing 57-inch dam outlet pipe. The flow will be directed to a 600 RPM Francis turbine in a new powerhouse at the downstream toe of the dam. Water will exit the powerhouse via a tailrace where it will rejoin the regular outflow from Taylor Park Reservoir.

TABLE 1: ESTIMATED PROJECT COST

Tasks	Cost
Design Review, Engineering, Impact Study, Etc.	$581,000
Site Preparation	$130,000
Powerhouse	$298,000
Turbine	$1,340,000
Install Turbine, Electrical, Transformers, Etc.	$581,000
Reclamation Lease and Commissioning	$60,000
Contingency (10%)	$290,000
TOTAL	**$3,280,000**

Permitting: The Project is currently being reviewed within NEPA's Categorical Exclusion category. No county or other local permits are required as part of the Project.

Schedule: The Project design is currently being reviewed by the Bureau of Reclamation. Their review will continue until the end of the year and, if approved, long-lead-time items will be ordered. The contractor will mobilize in the spring of 2023 and be complete by the fall of 2023.

Financial Analysis

Table 2 provides a summary of the Project's financial aspects. All hydroelectric projects qualify for a fixed rate of 2.00% per CWCB Financial Policy #7 (Lending Rate Determination).

TABLE 2: FINANCIAL SUMMARY

Project Cost	$3,280,000
GCEA Contribution	$1,595,000
CWCB Loan Amount[1]	$1,685,000
CWCB Loan Amount (Including 1% Service Fee)	$1,701,850
CWCB Annual Loan Payment	$75,987
CWCB Annual Loan Obligation (1st Ten Years)	$83,586
Number of Shares	3,500
Current Assessment per Share	$37.34
Annual Loan Obligation per Share (Estimated)[2]	$23.88

[1]GCEA has applied for a WaterSmart Grant for 48% of the Project costs.

[2]The Association will likely not need to raise shareholder assessments to cover the loan obligation. Other revenue streams including power sales from the Taylor Park Hydro Plant will be utilized.

Creditworthiness: The Association has $4,264,492 in long-term debt. The Association is up-to-date on their payments and is in good standing.

TABLE 3: EXISTING DEBT

Lender	Original Balance	Current Balance	Annual Payment	Maturity Date	Collateral
CWCB (CT2015-174)	$5,426,814	$4,264,492	$331,886	2037	Pledged Assessment Revenues; 100% Interest in Drop 5 Hydroelectric Facility

TABLE 4: FINANCIAL RATIOS

Financial Ratio	Past Years	Future w/ Project
Operating Ratio (revenues/expenses) weak: <100% | average: 100% - 120% | strong: >120%	108% (strong) $6.5M/$6.0M	107% (strong) $6.5M/$6.1M
Debt Service Coverage Ratio (revenues-expenses)/debt service weak: <100% | average: 100% - 120% | strong: >120%	267% (strong) $6.5M-$5.7M $0.3M	225% (strong) ($6.5M-$5.6M) $0.4M
Current Assets to Current Expenses weak: <50% | average: 50% - 100% | strong: >100%	100% (strong) $6.0M/$6.0M	98% (average) $6.0M/$6.1M
Annual Operating Cost per Acre-Foot (870,000 AF) weak: >$20 | average: $10 - $20 | strong: <$10	$6.67 (strong) $6.0M/0.9M AF	$6.78 (strong) $6.1M/0.9M AF

Collateral: Security for this loan will be a pledge of the Association's assessment revenues backed by an assessment covenant and annual financial reporting. This is in compliance with the CWCB Financial Policy #5 (Collateral).

cc: Steve Pope, Manager, Uncompahgre Valley Water Users Association
Jennifer Mele, Colorado Attorney General's Office

Attachments: Water Project Loan Program – Project Data Sheet

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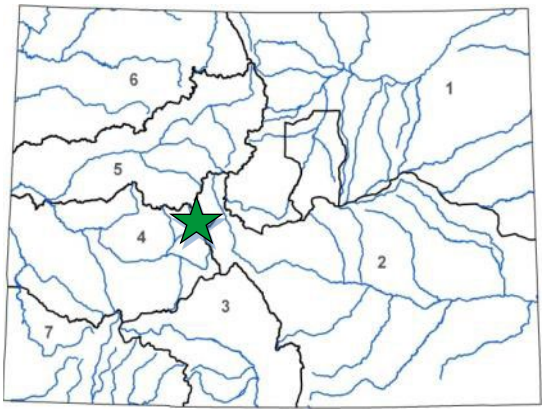
Taylor Park Hydro Powerplant

Uncompahgre Valley Water Users Association

September 2022 Board Meeting

LOAN DETAILS	
Project Cost:	$3,280,000
CWCB Loan (with 1% Service Fee):	$1,701,850
Loan Term and Interest Rate:	30 Yrs @ 2.0%
Funding Source:	*Severance Tax Perpetual Base Fund*
BORROWER TYPE	
Agricultural - Hydroelectric	
PROJECT DETAILS	
Project Type:	Hydroelectric
Average Annual Diversions:	870,000 AF



LOCATION			
County:			Gunnison
Water Source:			Taylor River
Drainage Basin:			Gunnison
Division:	4	*District:*	59

The Uncompahgre Valley Water Users Association (Association) was organized in 1902 and currently provides irrigation water to over 85,000 acres in Montrose and Delta Counties. It operates the Bureau of Reclamation's Uncompahgre Unit, which includes Taylor Park Reservoir north of the Town of Gunnison.

The Project will construct a 500 KW hydroelectric power plant at Taylor Park Reservoir to be owned and operated by a joint venture named Taylor River Hydro, LLC, which is made up of the Association and Gunnison County Electric Association (GCEA). Generated electricity will serve the GCEA service area. Funding for the project will be evenly split between the two partners. This loan will pay for the Association's portion of project costs, with construction commencing in the spring of 2023 and continuing for approximately 6 months.